APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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RICHARD F. JAWORSKI
COOPER & DUNHAM LLP
1185 AVENUE OF THE AMERICAS
NEW YORK NY 10036

EXAMINER
DINH, K.

ART UNIT	PAPER NUMBER
2155	

DATE MAILED:
04/06/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

☒ Responsive to communication(s) filed on *Jan 29, 2001*   .

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire   *THREE*   month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

    ☒ Claim(s) *1, 3-9, 11-18, 20-25, and 45-48*   is/are pending in the application.

    Of the above, claim(s) _____ is/are withdrawn from consideration.

    ☐ Claim(s) _____ is/are allowed.

    ☒ Claim(s) *1, 3-9, 11-18, 20-25, and 45-48* _____ is/are rejected.

    ☐ Claim(s) _____ is/are objected to.

    ☐ Claims _____ are subject to restriction or election requirement.

Application Papers

    ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

    ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

    ☐ The proposed drawing correction, filed on _____ is ☐approved ☐disapproved.

    ☐ The specification is objected to by the Examiner.

    ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

    ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

        ☐ All ☐ Some* ☐ None   of the CERTIFIED copies of the priority documents have been

            ☐ received.

            ☐ received in Application No. (Series Code/Serial Number) _____ .

            ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

      *Certified copies not received: _____ .

    ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

    ☐ Notice of References Cited, PTO-892

    ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

    ☐ Interview Summary, PTO-413

    ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

    ☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

DETAILED ACTION

1.   This is in response to the amendment filed on 1/26/2001.   Claims 1, 3- 9, 11-18, 20-25

and new claims 45-48 are presented for examination.

REASSIGNMENT AFFECTING APPLICATION LOCATION

2.   The Art Unit location of your application in the PTO has changed. To aid in correlating

any papers for this application, all further corresponding regrading this application should be

directed to *Art Unit 2155.*

Claim Rejections - 35 USC § 103

3.   Claims 1, 3-5, 7, 9, 11, 12, 13, 18, 20, 21, 24, 45, 47 and 48 are rejected under 35

U.S.C. 103(a) as being unpatentable over Bruno et al U.S. pat. No. 5,710,591 in view of Cohen et

al, IEEE 1993, "Virtual gain for audio windows."

As to claim 1, Bruno discloses an audio conference server (ACS) for enabling an application

program to provide multi-point (22a, 22b, 22c fig.1) comprising:

- means for managing at least one audio conference, said at least one audio conference

comprising a plurality of audio clients (12a, 12b, 12c fig.1)

- means for receiving (MCU 26 fig.1) audio data from said plurality of audio clients (see fig.1

and col.1 lines 29-51).

Bruno does not specifically disclose the mixer for audio data. However, Cohen discloses means

for mixing said audio data to provide spatialized audio to said plurality of audio clients in said at

least one audio conference, wherein said fixing means results in mixed audio data (see Cohen's

audio mixers, see page 85, section 0.1), and means for delivering said mixed audio data to said

plurality of audio clients in said at least one audio conference (transferring data to multiple audio

resources, see page 85, section 0.1) and a mixing means for providing distance-based attenuation

according to sound decay characteristics (the distance -dependent gain parameter used in MAW

(moving source/moving sink), see Cohen's section 1.2, distance dependent-gain and fig.3). It

would have been obvious to one of ordinary skill in the art at the time of the invention was made

to utilize Cohen's audio data mixer in Bruno's audio conference server to control the volume of a

sound source and a listener because it would have allowed multiple simultaneous audio sources

to coexist in a modifiable display without user stress (see Cohen's section 0.1).

As to claim 3, Bruno teaches checking the status of a registered owner of said at least one audio

conference to determine whether said at least one audio conference still exists (detecting the

location of a signal to identify at least one terminal device, see abstract and col.12 lines 20-52).

As to claim 4, Bruno further discloses checking means including a resource audit service (multiple control unit MCU 26 of fig.1), said resource audit service operable when said at least one audio conference is generated by a first application and is being used by a second application (a presentation mode can be seen by other conferees, see abstract and col. 4 line 54- col.5 line 40).

As to claim 5, Bruno further discloses a plurality of audio clients includes set top box (STB) audio clients and point source audio (PSA) audio clients (audio sources and the participants of the teleconference, see col.7 lines 27-64).

As to claim 7, Cohen discloses means for determining distance between a target audio client and a plurality of source audio clients, means for determining a plurality of weight values for each of said source audio clients based on an identified decay factor (distance-dependent gain parameter used in MAW, see Cohen's section 1.2) and a distance between each of said source audio client and a target audio client, wherein each of said weight values corresponds to a source/client pair (see Cohen's section 1.2, fig.3), means for generating a mix table (mixing board, see Cohen's section 0.1) for each source/client pair and means for calculating an actual mix (calculating parameters, see Cohen's section 0.1).

Cohen further discloses a continued gradual decay characteristics (see Cohen's fig.3).

Therefore, Cohen inherently discloses an audio big decay factor, an audio small decay factor, an

audio medium decay factor and a constant decay factor.

Claims 9 and 18 are rejected for the same reasons set forth above for claim 1.

Claim 11 is rejected for the same reasons set forth above for claim 3.

Claims 13 and 22 are rejected for the same reasons set forth above for claim 5.

Claims 12 and 21 are rejected for the same reasons set forth above for claim 4.

Claims 20 and 24 are rejected for the same reasons set forth above for claims 3 and 7.

Claim 45 is rejected for the same reasons set forth above for claim 1.

Claim 47 is rejected for the same reasons set forth above for claim 18.

Claim 48 is rejected for the same reasons set forth above for claims 1 and 18.

4.   Claims 6, 14-16 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Braun and Cohen as applied to claim 1 above, and further in view of Chau et al U. S. Pat.

No.5,764,750.

As to claim 6, Braun and Cohen's teachings still applied as in item 4 above, but neither Braun

nor Cohen discloses a providing program access to high level methods for creating and managing

a proxy audio conference. However, Chau et al disclose a providing program access to high

level methods for creating and managing a proxy audio conference (see abstract, fig.2 and col.5 lines 1-col.6 lines 35). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize Chau et al's proxy server in Braun's audio conference server because it would have provided the capabilities required of endpoints by the local system and its protocol in order to allow the local and the remote endpoints to communicate with each other (see Chau's summary).

As to claims 14, 15, 16 and 23, it is similar in scope as that of claim 6, and therefore is rejected for the same reasons set forth above for claim 6.

5. Claims 8, 17, 25 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bruno et al U.S. pat. No. 5,710,591 and Cohen as in claims 1 and 7 above and further in view of Everett US pat. No.5,864,816.

As to claim 8, Braun and Cohen's teachings still applied as in item 4 above. Neither Braun nor Cohen discloses a fade in/fade out function (scale factors) to avoid the delivery of said data in a step-wise manner to a speaker output (see abstract, col.1 line 57 to col.2 line 22).

However, Everett discloses:

A floating point operation elimination function (see 40 of fig.2) to avoid the performance of floating point multiplication (identifying scale factor functions to determine the excess of a predetermined threshold, see col.2 lines 30-63, col.4 lines 10-54).

A stream data function to prepare stream audio (MPEG streams) for playing ambient background music or using an audio source forwarded from another conference (see fig.1, col.3 lines 20-65). It would have been obvious to one of the ordinary skill in the art at the time the invention was made to Everett's teachings into Braun's audio system to facilitate the mixings of data streams because it would have facilitated the mixings of audio data in compressed forms.

As to claim 17, it is similar in scope as that of claims 7 and 8, and therefore is rejected for the same reasons set forth above for claims 7 and 8.

As to claim 25, it is similar in scope as that of claim 8, and therefore is rejected for the same reasons set forth above for claim 8.

Claim 46 is rejected for the same reasons set forth above for claim 1 and 17.

Response to Arguments

6.   Applicant asserted that the prior art does not disclose the distance-based attenuation characteristics.

Examiner respectfully disagrees. Cohen clearly discloses a mixing means for providing distance-based attenuation according to sound decay characteristics (the distances -dependent gain parameter used in MAW (moving source/moving sink), see Cohen's section 1.2, distance dependent-gain and fig.3).

7.   Applicant asserted that Cohen does not disclose a decay factor including a big factor, medium factor, constant decay factor.

Examiners respectfully disagree. Cohen further discloses some continued gradual decay

characteristics (see Cohen's fig.3). Therefore, Cohen inherently discloses an audio big decay

factor, an audio small decay factor, an audio medium decay factor and an constant decay factor.

8.   Applicant's arguments filed on 1/26/2001 (paper#17) have been fully considered but they

are not persuasive.

Conclusion

9.   Claims 1, 3- 9, 11-18, 20-25 and 45-48 are *rejected.*

10.   THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy

as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

11.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Khanh Dinh whose telephone number is (703) 308-8528. The

examiner can normally be reached on Monday through Friday from 8:00 A.m. to 5:00 P.m.

If attempts to reach the examiner by telephone are unsucessful, the examiner's supervisor, Ayaz

Sheikh, can be reached on (703) 305-9648. The fax phone number for this group is (703) 305-

7201.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the Group receptionist whose telephone number is (703) 305-9600.

AYAZ SHEIKH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

Khanh Dinh
Patent Examiner
Art Unit 2155
4/2/2001